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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/734,658

Applicant(s)

HILLIS ET AL.

Examiner

Arpan P. Savla

Art Unit

2185

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date 8/29/08

DETAILED ACTION

Response to Amendment

This Office action is in response to Applicant's communication filed November 18, 2008 in response to the Office action dated June 18, 2008. Claims 10, 11, 14, 15, 23, 35, 36, 39, 40, 41-46, 48, and 50 have been amended. Claims 1-50 are pending in this application.

ACKNOWLEDGMENT OF REFERENCES CITED BY APPLICANT

Information Disclosure Statement

1. As required by MPEP § 609(c), Applicant's submission of the Information Disclosure Statement (IDS) dated August 29, 2008 is acknowledged by Examiner and some of the cited references have been considered in the examination of the claims now pending. As required by MPEP § 609 c(2), a copy of the PTOL-1449 initialed and dated by Examiner is attached to the instant Office action.
2. Reference AA has not been considered because the reference was previously considered in the IDS dated March 29, 2007.

OBJECTIONS

Specification

3. In view of Applicant's amendment, the objections to the abstract and specification are withdrawn.

Claims

4. In view of Applicant's amendment, the objections to **claims 23 and 48** are withdrawn.

REJECTIONS NOT BASED ON PRIOR ART

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. **Claims 1-50** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

7. **As per claims 1-25**, the claims are directed towards a process. In order for process claims to be statutory, the claims must be (1) tied to a particular machine or apparatus or (2) transform a particular article to a different state or thing (this is called the "machine-transformation test") See *In re Bilski*, 545 F.3d 943, 961-62 (*Fed. Cir.* 2008). However, claims 1-25 are neither tied to a particular machine or apparatus nor transform a particular article to a different state or thing. It should be noted that, based on pages 4 and 19-21 of Applicant's specification, both the "spatial data storage system" and "temporal data storage system" can be embodied as entirely software, per se. It should also be noted that merely transmitting data is not sufficient to pass the test. Therefore, the process of claims 1-25 is directed to non-statutory subject matter.

8. **As per claims 26-50**, the claims are not limited to tangible embodiments. Based on pages 4 and 19-21 of Applicant's specification, the "system" can be embodied as

entirely software, per se, thus lacking hardware necessary to realize the software's functionality. Therefore, the system of claims 26-50 simply represents functional descriptive material and is thus non-statutory subject matter.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. **Claims 14, 15, 39, and 40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

11. **As per claims 14, 15, 39, and 40**, the term "substantially minimized" is a relative term which renders the claim indefinite. The term "substantially minimized" is not defined by the claims, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. For the purposes of examining the instant application, the Examiner will interpret the term to "substantially minimized" to instead refer to "minimized."

12. In view of Applicant's amendment, the 112, second paragraph rejection of **claims 10, 11, 35, and 36** is withdrawn.

REJECTIONS BASED ON PRIOR ART

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. **Claims 1-4, 9-15, 17-21, 26-29, 34-36, 39, 40, and 42-46** are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller et al. (U.S. Patent 5,920,701) (hereinafter "Miller") in view of Jaeger (U.S. Patent 6,345,028).

15. **As per claim 1**, Miller discloses a method comprising:

publishing a schedule of content transmission, the schedule identifying the content by one or more times (col. 3, lines 1-2; col. 13, lines 4-9; Fig. 3, element 114);
transmitting the at least one content to a temporal data storage system in accord with the published schedule (col. 3, lines 3-8; col. 13, lines 10-13; Fig. 3, element 116; col. 5, lines 39-48; Fig. 1, elements 16, 18, 20; Fig. 2, element 46). *It should be noted that the "tape drives" within the "replicated servers" are analogous to a "temporal data storage system."*

Miller does not disclose reading at least one content from at least one spatial data storage system in a fashion independent of the schedule of content transmission.

Jaeger discloses reading at least one content from at least one spatial data storage system in a fashion independent of the schedule of content transmission (col. 5, lines 49-52; col. 2, lines 41-45; Fig. 1, element 11). *It should be noted that the "data*

signals/tracks" are analogous to the "at least one content" and that the "disk drive" is analogous to a "spatial data storage system."

Miller and Jaeger are analogous art because they are from the same field of endeavor, that being data transmission.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to implement Jaeger's reordering of data signals within Miller's content source's hard disk drives because all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded the predictable results of maximizing the number of data signals that can be transmitted from a disk drive by minimizing seek time of the disk drive head.

Therefore, it would have been obvious to combine Miller and Jaeger for the benefit of obtaining the invention as specified in claim 1.

16. **As per claim 2**, the combination of Miller/Jaeger discloses said publishing a schedule of content transmission, the schedule identifying the content by one or more times further comprises:

printing the schedule of content transmission on a medium (Miller, col. 3, lines 1-2 and 63-67; col. 13, lines 4-9; Fig. 3, element 114); *It should be noted that act of "transmitting" the "distribution schedule" across the "communication links" anticipates the act of "printing the schedule of content transmission on a medium" because the distribution schedule is reproduced ("printed") on the communication link ("medium").*

and distributing the medium to one or more sites associated with one or more associated data switch controllers (Miller, col. 3, lines 1-2; col. 13, lines 4-9; Fig. 3, element 114; col. 5, lines 39-43; Fig. 1, elements 16, 18, 20; Fig. 2, element 34). *It should be noted that the "replicated servers" are analogous to the "one or more sites" and that the "I/O controllers" are analogous to the "data switch controllers."*

17. **As per claim 3**, the combination of Miller/Jaeger discloses said publishing a schedule of content transmission, the schedule identifying the content by one or more times further comprises:

transmitting the schedule of content transmission over a data communications link (Miller, col. 3, lines 1-2 and 63-67; col. 13, lines 4-9; Fig. 3, element 114).

18. **As per claim 4**, the combination of Miller/Jaeger discloses said publishing a schedule of content transmission, the schedule identifying the content by one or more times further comprises:

transmitting the schedule of content transmission over a sideband data communications link (Miller, col. 3, lines 1-2 and 63-67; col. 13, lines 4-9; Fig. 3, element 114).

19. **As per claim 9**, the combination of Miller/Jaeger discloses said reading at least one content from at least one spatial data storage system in a fashion independent of the schedule of content transmission further comprises:

reading the at least one content from at least one hard disk drive (Jaeger, col. 5, lines 49-52; col. 2, lines 41-45; Fig. 1, element 11).

20. **As per claim 10**, the combination of Miller/Jaeger discloses said reading the at least one content from at least one hard disk drive further comprises:

reading tracks of the at least one hard disk drive in a defined sequence including at least a sequence starting with an outer track and ending with an inner track (Jaeger, col. 5, lines 49-52; col. 2, lines 41-45; Fig. 1, element 11).

21. **As per claim 11**, the combination of Miller/Jaeger discloses said reading the at least one content from at least one hard disk drive further comprises:

reading tracks of the at least one hard disk drive in a defined sequence including at least a sequence starting with an inner track and ending with an outer track (Jaeger, col. 5, lines 49-52; col. 2, lines 41-45; Fig. 1, element 11). *It should be noted that depending on the manufacturer, "track 1" could be the innermost track and "track N" could be the outermost track, and vice versa.*

22. **As per claim 12**, the combination of Miller/Jaeger discloses said reading the at least one content from at least one hard disk drive further comprises:

reading the at least one content from a first disk drive (Jaeger, col. 5, lines 49-52; col. 2, lines 41-45; Fig. 1, element 11)

and reading a substantial duplicate of the at least one content from a second disk drive (Jaeger, col. 6, lines 1-20 and 49-54; Fig. 1, element 11').

23. **As per claim 13**, the combination of Miller/Jaeger discloses said reading the at least one content from at least one hard disk drive further comprises:

reading a first content from a first disk drive (Jaeger, col. 5, lines 49-52; col. 2, lines 41-45; Fig. 1, element 11)

and reading a second content a second disk drive (Jaeger, col. 6, lines 1-20 and 49-54; Fig. 1, element 11').

24. **As per claim 14**, the combination of Miller/Jaeger discloses said reading at least one content from at least one spatial data storage system in a fashion independent of the schedule of content transmission further comprises:

reading the at least one content of a hard disk drive such that an aggregate distance traversed by a hard disk head is substantially minimized (Jaeger, col. 5, lines 49-52; col. 2, lines 41-45; Fig. 1, element 11). *It should be noted that reading data tracks from the disk drive starting with track 1 and ending with track N will "substantially minimize" the aggregate distance traversed by a disk drive head.*

25. **As per claim 15**, the combination of Miller/Jaeger discloses said reading at least one content from at least one spatial data storage system in a fashion independent of the schedule of content transmission further comprises:

reading the at least one content of a spatial address device such that an aggregate time to read the at least one content of the spatial address device is substantially minimized (Jaeger, col. 5, lines 49-52; col. 2, lines 41-45; Fig. 1, element 11). *It should be noted that reading data tracks from the disk drive starting with track 1 and ending with track N will "substantially minimize" the aggregate time to read the data tracks of the disk drive.*

26. **As per claim 17**, the combination of Miller/Jaeger discloses said reading at least one content from at least one spatial data storage system in a fashion independent of the schedule of content transmission further comprises:

reading the at least one content from at least one file address storage system (Jaeger, col. 5, lines 12-20 and 49-52; col. 2, lines 41-45; Fig. 1, element 11).

27. **As per claim 18**, the combination of Miller/Jaeger discloses said reading at least one content from at least one spatial data storage system in a fashion independent of the schedule of content transmission further comprises:

reading the at least one content from at least one disk address storage system (Jaeger, col. 5, lines 12-20 and 49-52; col. 2, lines 41-45; Fig. 1, element 11).

28. **As per claim 19**, the combination of Miller/Jaeger discloses said reading at least one content from at least one spatial data storage system in a fashion independent of the schedule of content transmission further comprises:

reading the at least one content from at least one file address storage system (Jaeger, col. 5, lines 12-20 and 49-52; col. 2, lines 41-45; Fig. 1, element 11).

29. **As per claim 20**, the combination of Miller/Jaeger discloses said reading at least one content from at least one spatial data storage system in a fashion independent of the schedule of content transmission further comprises:

reading the at least one content from at least one substantially static memory address storage system (Jaeger, col. 5, lines 12-20 and 49-52; col. 2, lines 41-45; Fig. 1, element 11).

30. **As per claim 21**, the combination of Miller/Jaeger discloses said reading at least one content from at least one spatial data storage system in a fashion independent of the schedule of content transmission further comprises:

reading the at least one content from at least one object address storage system (col. 5, lines 12-20 and 49-52; col. 2, lines 41-45; Fig. 1, element 11).

31. As per claims 26-29, 34-40, and 42-46, these system claims correspond to method claims 1-4, 9-15, and 17-21, respectively, and are therefore rejected under the same rationale as provided above.

32. Claims 5-8 and 30-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller in view of Jaeger as applied to claim 1 above, and further in view of Eyer et al. (U.S. Patent 5,801,753) (hereinafter "Eyer").

33. As per claim 5, the combination of Miller/Jaeger discloses a temporal data storage system (Miller, col. 5, lines 39-48; Fig. 1, elements 16, 18, 20; Fig. 2, element 46).

The combination of Miller/Jaeger does not disclose transmitting the schedule of content transmission to the temporal data storage system.

Eyer discloses transmitting the schedule of content transmission to a memory (col. 5, line 62 – col. 6, line 23).

The combination of Miller/Jaeger and Eyer are analogous art because they are from the same field of endeavor, that being data transmission.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to provide Eyer's IPG stream to Miller/Jaeger's tape drives because all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded the predictable results of

an interactive guide that responds to user inquiries on an instantaneous or near instantaneous basis.

34. **As per claim 6**, the combination of Miller/Jaeger/Eyer discloses said transmitting the schedule of content transmission to the temporal data storage system further comprises:

interleaving the schedule of content with other data (Eyer, col. 15, lines 55-61).

35. **As per claim 7**, the combination of Miller/Jaeger/Eyer discloses said interleaving the schedule of content with other data further comprises:

transmitting the schedule relative to at least one time marker amongst the at least one content (Eyer, col. 16, lines 45-58; Fig. 5).

36. **As per claim 8**, the combination of Miller/Jaeger/Eyer discloses said interleaving the schedule of content with other data further comprises:

transmitting the schedule amongst the at least one content at a determined interval of time (Eyer, col. 16, lines 45-58; Fig. 5).

37. **As per claims 30-33**, these system claims correspond to method claims 5-8, respectively, and are therefore rejected under the same rationale as provided above.

38. **Claims 16, 22-25, 41, and 47-50** are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller in view of Jaeger as applied to claim 1 above, and further in view of Cho (U.S. Patent 6,081,402).

39. **As per claim 16**, the combination of Miller/Jaeger discloses said reading at least one content from at least one spatial data storage system in a fashion independent of the schedule of content transmission further comprises:

reading a storage of a hard disk drive with a hard drive arm having a disk drive head, said head is dedicated to at least one specific disk drive track (Jaeger, col. 5, lines 49-52; col. 2, lines 41-45; Fig. 1, element 11).

The combination of Miller/Jaeger does not disclose a hard drive arm having at least two disk drive heads.

Cho discloses a hard drive arm having at least two disk drive heads (col. 11, lines 48-50; Fig. 13).

The combination of Miller/Jaeger and Cho are analogous art because they are from the same field of endeavor, that being data transmission.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to implement Cho's multi-arm-track-per-head disk drive within Miller/Jaeger's recording system because all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded the predictable results of providing multiple accesses to data tracks simultaneously to satisfy simultaneous external service requests as well as totally eliminating track seek times.

40. **As per claim 22**, the combination of Miller/Jaeger discloses said transmitting the at least one content to a temporal data storage system in accord with the published schedule further comprises:

receiving a portion of the at least one content from the spatial data storage system with a buffer (Jaeger, col. 5, lines 52-58);

writing the portion of the at least one content to the buffer (Jaeger, col. 5, lines 52-58);

reading the portion of the at least one content from the buffer (Jaeger, col. 6, lines 1-26);

and transmitting the portion of the at least one content to the temporal data storage system (Miller, col. 3, lines 3-8; col. 13, lines 10-13; Fig. 3, element 116; col. 5, lines 39-48; Fig. 1, elements 16, 18, 20; Fig. 2, element 46).

The combination of Miller/Jaeger does not disclose a delay-reclocking drive as claimed by Applicant.

Cho discloses a delay-reclocking drive with a head of a first arm and a head of a second arm (col. 11, lines 45-50; Fig. 13).

The combination of Miller/Jaeger and Cho are analogous art because they are from the same field of endeavor, that being data transmission.

At the time of the invention it would have obvious to a person of ordinary skill in the art to substitute Miller/Jaeger's buffer as Cho's multi-arm-track-per-head disk drive (i.e. delay-reclocking drive) in a manner such that receiving a portion of the at least one content from the spatial data storage system with a delay-reclocking drive, writing the portion of the at least one content to the delay-reclocking drive with a head of a first arm of the delay-reclocking drive, and reading the portion of the at least one content from the delay-reclocking drive with a head of a second arm of the delay-reclocking drive, the head of the second arm of the delay-reclocking drive being on a same track as the head of the first arm are accomplished by the combination, because the simple substitution of

one known element (RAM buffer) for another (disk drive) would have yielded the predictable results of a more durable long-term storage of data. Also, all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded the predictable results of providing multiple accesses to data tracks simultaneously to satisfy simultaneous external service requests as well as totally eliminating track seek times.

41. **As per claim 23**, the combination of Miller/Jaeger discloses said transmitting the at least one content to a temporal data storage system in accord with the published schedule further comprises:

receiving a portion of the at least one content from the spatial data storage system with a buffer (Jaeger, col. 5, lines 52-58);

writing the portion of the at least one content to the buffer (Jaeger, col. 5, lines 52-58);

reading the portion of the at least one content from the buffer (Jaeger, col. 6, lines 1-26);

and transmitting the portion of the at least one content to the temporal data storage system (Miller, col. 3, lines 3-8; col. 13, lines 10-13; Fig. 3, element 116; col. 5, lines 39-48; Fig. 1, elements 16, 18, 20; Fig. 2, element 46).

The combination of Miller/Jaeger does not disclose a delay-reclocking drive as claimed by Applicant.

Cho discloses a delay-reclocking drive with a head of a first arm and a head of a second arm (col. 11, lines 45-50; Fig. 13).

The combination of Miller/Jaeger and Cho are analogous art because they are from the same field of endeavor, that being data transmission.

At the time of the invention it would have obvious to a person of ordinary skill in the art to substitute Miller/Jaeger's buffer as Cho's multi-arm-track-per-head disk drive (i.e. delay-reclocking drive) in a manner such that receiving a portion of the at least one content from the spatial data storage system with a delay-reclocking drive; writing the portion of the at least one content to the delay-reclocking drive with a head of a first arm of the delay-reclocking drive; reading the portion of the at least one content from the delay-reclocking drive with a head of a second arm of the delay-reclocking drive, the head of the second arm of the delay-reclocking drive being on a different track than the head of the first arm are accomplished by the combination, because the simple substitution of one known element (RAM buffer) for another (disk drive) would have yielded the predictable results of a more durable long-term storage of data. Also, all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded the predictable results of providing multiple accesses to data tracks simultaneously to satisfy simultaneous external service requests as well as totally eliminating track seek times.

42. **As per claim 24**, the combination of Miller/Jaeger discloses said transmitting the at least one content to a temporal data storage system in accord with the published schedule further comprises:

receiving a portion of the at least one content from the spatial data storage system with a buffer (Jaeger, col. 5, lines 52-58);

writing the portion of the at least one content to the buffer (Jaeger, col. 5, lines 52-58);

reading the portion of the at least one content from the buffer (Jaeger, col. 6, lines 1-26);

and transmitting the portion of the at least one content to the temporal data storage system (Miller, col. 3, lines 3-8; col. 13, lines 10-13; Fig. 3, element 116; col. 5, lines 39-48; Fig. 1, elements 16, 18, 20; Fig. 2, element 46).

The combination of Miller/Jaeger does not disclose a delay-reclocking drive as claimed by Applicant.

Cho discloses a delay-reclocking drive with a first head of a first arm and a second head of the first arm (col. 11, lines 48-50; Fig. 13).

The combination of Miller/Jaeger and Cho are analogous art because they are from the same field of endeavor, that being data transmission.

At the time of the invention it would have obvious to a person of ordinary skill in the art to substitute Miller/Jaeger's buffer as Cho's multi-arm-track-per-head disk drive (i.e. delay-reclocking drive) in a manner such that a portion of the at least one content from the spatial data storage system with a delay-reclocking drive, writing the portion of

the at least one content to the delay-reclocking drive with a first head of a first arm of the delay-reclocking drive, and reading the portion of the at least one content from the delay-reclocking drive with a second head of the first arm of the delay-reclocking drive are accomplished by the combination, because the simple substitution of one known element (RAM buffer) for another (disk drive) would have yielded the predictable results of a more durable long-term storage of data. Also, all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded the predictable results of providing multiple accesses to data tracks simultaneously to satisfy simultaneous external service requests as well as totally eliminating track seek times.

43. **As per claim 25**, the combination of Miller/Jaeger discloses said transmitting the at least one content to a temporal data storage system in accord with the published schedule further comprises:

receiving a portion of the at least one content from the spatial data storage system with a buffer (Jaeger, col. 5, lines 52-58);

writing the portion of the at least one content to the buffer (Jaeger, col. 5, lines 52-58);

reading the portion of the at least one content from the buffer (Jaeger, col. 6, lines 1-26);

and transmitting the portion of the at least one content to the temporal data storage system (Miller, col. 3, lines 3-8; col. 13, lines 10-13; Fig. 3, element 116; col. 5, lines 39-48; Fig. 1, elements 16, 18, 20; Fig. 2, element 46).

The combination of Miller/Jaeger does not disclose a delay-reclocking drive as claimed by Applicant.

Cho discloses a delay-reclocking drive with a first head of a first arm and a second head of the first arm (col. 11, lines 48-50; Fig. 13).

The combination of Miller/Jaeger and Cho are analogous art because they are from the same field of endeavor, that being data transmission.

At the time of the invention it would have obvious to a person of ordinary skill in the art to substitute Miller/Jaeger's buffer as Cho's multi-arm-track-per-head disk drive (i.e. delay-reclocking drive) in a manner such that a portion of the at least one content from the spatial data storage system with a delay-reclocking drive, writing the portion of the at least one content to the delay-reclocking drive with a first head of a first arm of the delay-reclocking drive, and reading the portion of the at least one content from the delay-reclocking drive with the first head of the first arm of the delay-reclocking drive are accomplished by the combination, because the simple substitution of one known element (RAM buffer) for another (disk drive) would have yielded the predictable results of a more durable long-term storage of data. Also, all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded the predictable results of providing multiple accesses to data tracks

simultaneously to satisfy simultaneous external service requests as well as totally eliminating track seek times.

44. **As per claims 41 and 47-50**, these system claims correspond to method claims 16 and 22-25, respectively, and are therefore rejected under the same rationale as provided above.

Response to Arguments

45. Applicant's arguments filed November 18, 2008 with respect to **claims 1-50** have been fully considered but they are not persuasive.

46. With respect to Applicant's argument that the cited text does not disclose "the schedule identifying the content by one or more times", in section III(B)(1)(a)(1) of the communication filed November 18, 2008, the Examiner respectfully disagrees. As an initial matter, the Examiner submits that Miller's "transmission instructions" are analogous to Applicant's "schedule" and Miller's "content data" is analogous to Applicant's "content." As noted by Applicant themselves, col. 13, lines 4-6 of Miller disclose:

"...the scheduler 10 distributes transmission instructions to the content sources 12, 14. These instructions include the time to start transmitting the content data.."

Thus, it is clear that Miller's "time to start transmitting the content data" discloses Applicant's "one or more times." Based on the foregoing, it follows that Miller's transmission instructions ("schedule") identifies the content data ("content") by one or more times ("time to start transmitting the content data"). In order to support the

Examiner's position, Applicant is directed to Fig. 6, element 600 of Applicant's drawings as well as lines 4-7 of the third full paragraph on page 11 of Applicant's specification which state:

"Method step 600 shows printing the schedule of content transmission times on a medium. In one implementation, a paper flier having a list of contents and associated times of transmission of such contents are printed. For example, printing a page containing the information "Joe Smith's echocardiogram will be transmitted at times T1, T8, T30, etc.""

Thus, it is quite evident that Miller's distribution of transmission instructions which include the time to start transmitting the content data is analogous to Applicant's example in which a page is printed containing the times Joe Smith's echocardiogram will be transmitted. Therefore, as can be seen from the foregoing, Miller sufficiently discloses the schedule identifying the content by one or more times. Accordingly, the combination of Miller/Jaeger renders claim 1 unpatentable.

47. With respect to Applicant's argument in section III(B)(2) regarding dependent claims 2-25, the Examiner respectfully disagrees. The argument relies on the allegation that independent claim 1 is allowable and therefore for the same reasons dependent claims 2-25 are allowable. However, as addressed above, independent claim 1 is not allowable, thus, Applicant's argument with respect to dependent claims 2-25 is not persuasive.

48. With respect to Applicant's argument in section III(C)(1)(a)(1), the Examiner respectfully disagrees for the same reasons as detailed above in section 46 of the current Office action.

49. With respect to Applicant's argument in section III(C)(2), the Examiner respectfully disagrees for the same reasons as detailed above in section 47 of the current Office action.

Conclusion

STATUS OF CLAIMS IN THE APPLICATION

The following is a summary of the treatment and status of all claims in the application as recommended by MPEP 707.70(i):

CLAIMS REJECTED IN THE APPLICATION

Per the instant office action, **claims 1-50** have received an action on the merits and are subject of a non-final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arpan P. Savla whose telephone number is (571) 272-1077. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sanjiv Shah can be reached on (571) 272-4098. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Arpan Savla/
Examiner, Art Unit 2185
February 2, 2009

/Sanjiv Shah/
Supervisory Patent Examiner, Art
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